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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,706	07/21/2003	Ryuichi Iwamura	SON5180.30A	7011

36813 7590 11/29/2007

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EXAMINER	
WONG, ALLEN C	
ART UNIT	**PAPER NUMBER**
2621	
MAIL DATE	**DELIVERY MODE**
11/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/624,706	IWAMURA, RYUICHI	
	Examiner	Art Unit	
	Allen Wong	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 September 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-12 and 14-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-12 and 14-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/7/07 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 37-38 have been considered but are moot in view of the new ground(s) of rejection.

3. Applicant's arguments filed 9/7/07 have been fully read and considered but they are not persuasive.

The 101 rejection to claim 43 is withdrawn.

Regarding lines 12-18 on page 12 of applicant's remarks, applicant states that "it" or the concept of MPEG has nothing to do with the term "bandwidth". The examiner respectfully disagrees. The concept of MPEG has everything to do with bandwidth for permitting the control of the transmission during encoding/decoding of video data to properly allocate bits to video data during compression in a dynamic manner so as to smoothly transmit data to the display at the decoding end as quickly, smoothly efficiently and precisely as possible. The recursive rate control scheme is considered to be well known for encoding video data in an accurate and efficient manner. MPEG is well

known in the art of image compression and that the MPEG is known for using the recursive rate control scheme for dynamic, adaptive adjustment and allocation of the appropriate amount of bits to encode image data. The exhibit A cited by applicant seemed to support the generic idea of what bandwidth is. However, as it is well known to one of ordinary skilled in the art, the MPEG encoding standard applies the scheme of controlling the communication channel for dynamic bandwidth allocation via recursive rate control scheme. Conceptually, controlling the encoding by changing the quantization parameter to adjust according to prevent buffer overflow and buffer underflow is commonly used in MPEG for permitting the smooth transmission of video data so as to prevent data from being lost or being corrupted to the extent that important video image data would be preserved in the best quality possible while transmitting to the decoding end for display.

Regarding lines 16-17 on page 13 of applicant's remarks, applicant states that it is improper to believe that simply transferring files over a network amounts to "allocating bandwidth". The examiner respectfully disagrees. The concept of MPEG has everything to do with bandwidth for permitting the control of the transmission during encoding/decoding of video data to properly allocate bits to video data during compression in a dynamic manner so as to smoothly transmit data to the display at the decoding end as quickly, smoothly efficiently and precisely as possible. The recursive rate control scheme is considered to be well known for encoding video data in an accurate and efficient manner. MPEG is well known in the art of image compression and that the MPEG is known for using the recursive rate control scheme for dynamic,

adaptive adjustment and allocation of the appropriate amount of bits to encode image data. It is well known to one of ordinary skilled in the art, the MPEG encoding standard applies the scheme of controlling the communication channel for dynamic bandwidth allocation via recursive rate control scheme. Conceptually, controlling the encoding by changing the quantization parameter to adjust according to prevent buffer overflow and buffer underflow is commonly used in MPEG for permitting the smooth transmission of video data so as to prevent data from being lost or being corrupted to the extent that important video image data would be preserved in the best quality possible while transmitting to the decoding end for display.

Regarding lines 18-21 on page 13 of applicant's remarks, applicant states that the examiner appears to characterize the operation of an MPEG encoder as "dynamically allocating bandwidth" is misguided, and that dynamically allocating bits to a file is not the same as dynamically allocating bandwidth over a network. The examiner respectfully disagrees. Dynamically allocating bits to data, ie. video images or video image file(s), transmitted over a network needs the MPEG compression concept of the recursive rate control scheme for controlling the channel bandwidth of the by regulating the transmission buffer and video data compression rate. The recursive rate control scheme is considered to be well known for encoding video data in an accurate and efficient manner. MPEG is well known in the art of image compression and that the MPEG is known for using the recursive rate control scheme for dynamic, adaptive adjustment and allocation of the appropriate amount of bits to encode image data. It is well known to one of ordinary skilled in the art, the MPEG encoding standard applies the

scheme of controlling the communication channel for dynamic bandwidth allocation via recursive rate control scheme. Conceptually, controlling the encoding by changing the quantization parameter to adjust according to prevent buffer overflow and buffer underflow is commonly used in MPEG for permitting the smooth transmission of video data so as to prevent data from being lost or being corrupted to the extent that important video image data would be preserved in the best quality possible while transmitting to the decoding end for display.

Regarding page 14 of applicant's remarks, applicant cited subject material, from the paragraphs [0066] and [0067] of applicant's specification, is not specifically disclosed in the claims. After perusal of the claims, the claims do not specifically state the specifics of what elements are prioritized in what manner.

Again, the concept of MPEG has everything to do with bandwidth for permitting the control of the transmission during encoding/decoding of video data to properly allocate bits to video data during compression in a dynamic manner so as to smoothly transmit data to the display at the decoding end as quickly, smoothly efficiently and precisely as possible. The recursive rate control scheme is considered to be well known for encoding video data in an accurate and efficient manner. MPEG is well known in the art of image compression and that the MPEG is known for using the recursive rate control scheme for dynamic, adaptive adjustment and allocation of the appropriate amount of bits to encode image data. The exhibit A cited by applicant seemed to support the generic idea of what bandwidth is. However, as it is well known to one of ordinary skilled in the art, the MPEG encoding standard applies the scheme of

controlling the communication channel for dynamic bandwidth allocation via recursive rate control scheme. Conceptually, controlling the encoding by changing the quantization parameter to adjust according to prevent buffer overflow and buffer underflow is commonly used in MPEG for permitting the smooth transmission of video data so as to prevent data from being lost or being corrupted to the extent that important video image data would be preserved in the best quality possible while transmitting to the decoding end for display.

Regarding the last two lines on page 14 to line 1 on page 15 of applicant's remarks, applicant states that dynamic allocation of bandwidth, which includes both prioritization and redistribution of available bandwidth, has nothing to do with video compression, MPEG or otherwise. The examiner respectfully disagrees. First of all, again, as explained above, the claims do not specifically state the prioritization of anything. However, if one were to compress video image data, of course, one of ordinary skill in the art knows that in a group of pictures, from a sequence of pictures, ready for video compression, the I (intraframe) frames are prioritized first since they are the reference frames needed, then the P (predictive) frames are prioritized second and lastly, the B frames are usually prioritized last for since the B (bidirectional) frames can be bi-directionally determined from I and P frames, via forward or backwardly predictively determined. Then, the recursive rate control scheme is used according to properly allocate bits to the I, P and B frames from the group of pictures of the sequence of pictures to dynamically allocate bandwidth so as to compress and transmit the video data over a communication channel. So, the claims must specify how and

what is prioritized, as the term "priority" or concept of prioritization is not specifically disclosed in the claims.

Regarding lines 21-22 on page 15 of applicant's remarks, applicant states that bandwidth is not the terminology used for describing image compression. The examiner respectfully disagrees. The concept of MPEG has everything to do with bandwidth for permitting the control of the transmission during encoding/decoding of video data to properly allocate bits to video data during compression in a dynamic manner so as to smoothly transmit data to the display at the decoding end as quickly, smoothly efficiently and precisely as possible. The recursive rate control scheme is considered to be well known for encoding video data in an accurate and efficient manner. MPEG is well known in the art of image compression and that the MPEG is known for using the recursive rate control scheme for dynamic, adaptive adjustment and allocation of the appropriate amount of bits to encode image data. The exhibit A cited by applicant seemed to support the generic idea of what bandwidth is. However, as it is well known to one of ordinary skilled in the art, the MPEG encoding standard applies the scheme of controlling the communication channel for dynamic bandwidth allocation via recursive rate control scheme. Conceptually, controlling the encoding by changing the quantization parameter to adjust according to prevent buffer overflow and buffer underflow is commonly used in MPEG for permitting the smooth transmission of video data so as to prevent data from being lost or being corrupted to the extent that important video image data would be preserved in the best quality possible while transmitting to the decoding end for display.

In column 8, lines 23-42, Smith teaches that MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner, where Smith's invention can be applied for implementation in the video image surveillance applications. Smith discloses that video image compression can be utilized for compressing video images obtained from video surveillance, and that the MPEG can be applied for dynamically, efficiently and precisely encode the video images. Thus, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data.

Regarding lines 10-13 on page 16 of applicant's remarks, applicant states that Smith does not disclose dynamic bandwidth allocation, and that Smith does not use the term "bandwidth" at all except twice in column 1, line 16 and lines 25-26, for analog signals. The examiner respectfully disagrees. With regards to the citation of column 1, line 16 and lines 25-26, the applicant only cited the sections in the prior art, but applicant needs to focus on figure 3, where Smith discloses the camera obtains image data from element 90 and sends the image data to element 93 for conversion to digital image data for preparation for encoding image data in a dynamically bandwidth allocation scheme at the encoding unit 95 wherein the MPEG encoding standard is applied, as disclosed in col.8, lines 15-22. Then, in column 8, lines 23-42, Smith teaches that MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner, where Smith's invention can be applied for implementation in the video image surveillance applications. Smith discloses that video image compression can be utilized for compressing video images

obtained from video surveillance, and that the MPEG can be applied for dynamically, efficiently and precisely encode the video images. Thus, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data.

Regarding lines 22-23 and lines 26-27 on page 16 of applicant's remarks, applicant states that Smith does not discuss network bandwidth. The examiner respectfully disagrees. In figure 3, Smith discloses the camera obtains image data from element 90 and sends the image data to element 93 for conversion to digital image data for preparation for encoding image data in a dynamically bandwidth allocation scheme at the encoding unit 95 wherein the MPEG encoding standard is applied, as disclosed in col.8, lines 15-22. Then, in column 8, lines 23-42, Smith teaches that MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner, where Smith's invention can be applied for implementation in the video image surveillance applications. Smith discloses that video image compression can be utilized for compressing video images obtained from video surveillance, and that the MPEG can be applied for dynamically, efficiently and precisely encode the video images. Thus, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data.

The concept of MPEG has everything to do with bandwidth for permitting the control of the transmission during encoding/decoding of video data to properly allocate bits to video data during compression in a dynamic manner so as to smoothly transmit

data to the display at the decoding end as quickly, smoothly efficiently and precisely as possible. The recursive rate control scheme is considered to be well known for encoding video data in an accurate and efficient manner. MPEG is well known in the art of image compression and that the MPEG is known for using the recursive rate control scheme for dynamic, adaptive adjustment and allocation of the appropriate amount of bits to encode image data. The exhibit A cited by applicant seemed to support the generic idea of what bandwidth is. However, as it is well known to one of ordinary skilled in the art, the MPEG encoding standard applies the scheme of controlling the communication channel for dynamic bandwidth allocation via recursive rate control scheme. Conceptually, controlling the encoding by changing the quantization parameter to adjust according to prevent buffer overflow and buffer underflow is commonly used in MPEG for permitting the smooth transmission of video data so as to prevent data from being lost or being corrupted to the extent that important video image data would be preserved in the best quality possible while transmitting to the decoding end for display.

The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith,

as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance, as disclosed in Smith's column 3, lines 13-29.

Regarding the last two lines on page 16 to line 3 on page 17 of applicant remarks, applicant cited sections of the specification and state these concepts are not taught in Smith. The applicant can cite all those sections in the applicant's specification, but if the claims do not specifically state those limitations in the claims, as previously explained in the above paragraphs, then the claims are interpreted in the broadest, reasonable interpretation as they are currently written. Thus, the combination of Ramirez-Diaz and Smith meets the broad limitations is acceptable and reasonable.

Regarding lines 8-9 on page 17 of applicant's remarks, applicant states that Ramirez-Diaz and Smith do not disclose motion detectors. The examiner respectfully disagrees. Ramirez-Diaz discloses the motion sensor, as disclosed in col.4, ln.19-25 and col.5, ln.33-42. The concept of motion detectors is well known in the art.

Regarding lines 9-15 on page 17 of applicant's remarks, applicant states that the prior art does not specifically disclose the prioritization of elements, and how and what data was prioritized and updated. These limitations were not specifically disclosed in the claims. Thus, the claims are broadly, reasonably interpreted as elaborated below.

Thus, the rejection of the claims is maintained.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3-12, 14-36 and 39-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramirez-Diaz (6,476,858) and Smith (6,757,008).

Regarding claim 1, Ramirez-Diaz discloses a system for providing area surveillance (fig.7), comprising:

at least one video imaging device configured for transmitting a video data stream over an AC power-line (fig.7, elements 4a-4x are the electronic imaging devices connected via a line carrying electric current and col.5, ln.58-65; also note "TCP/IP over dialup/LAN/Internet link" are used for communication of data to remote video imaging devices);

a video display interface device (fig.7, element 5a has a display for viewing); and means for receiving said video data stream from said AC power-line and controlling presentation of said received video data stream as passed to said video display interface device for storage or presentation to a user (fig.7, note element 1a receives the video data stream and that element 2a is the interface that can control the presentation of the received video data stream as passed to the video display interface at element 5a for storage or presentation to the user at element 5a).

Ramirez-Diaz does not specifically disclose means for dynamically allocating bandwidth over said AC power-line for said video imaging devices. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data (col.8, ln.23-42; MPEG

compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner in that the MPEG compression uses a recursive rate control scheme to dynamically allocate the bandwidth needed for compressing and transmitting video data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

Regarding claim 3, Ramirez-Diaz discloses the use of multiple video imaging devices (fig.7, elements 4a-4x are the imaging devices and col.5, ln.58-65). Ramirez-Diaz does not specifically disclose wherein said dynamically allocated bandwidth is responsive to the bandwidth needs of additional video imaging devices or other devices communicating over the AC power line. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner in that the MPEG compression uses a recursive rate control scheme to dynamically allocate the bandwidth needed for compressing and transmitting video data by responsively allocating the needed bandwidth). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for applying to multiple video imaging sources for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

Regarding claims 4 and 26, Ramirez-Diaz does not specifically disclose dynamic allocation of bandwidth is performed in response to predetermined and event-driven settings. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner in that the MPEG compression uses a recursive rate control scheme to dynamically allocate the bandwidth needed for compressing and transmitting video data by responsively allocating the needed bandwidth in accordance to the predetermined and event-driven settings as set in the initial coding rate, and adjusted by the recursive rate control scheme). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

Regarding claims 5, 14 and 27, Ramirez-Diaz discloses obtaining video surveillance data along with motion detection from obtained video data (col.4, ln.19-25). Ramirez-Diaz does not specifically disclose dynamic allocation of bandwidth modulates the amount of bandwidth allocated to said video imaging device in response to a detected motion event. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data responsive to detected motion event (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner in that the MPEG compression uses a recursive rate control

scheme to dynamically allocate the bandwidth needed for compressing and transmitting video data by responsively allocating the needed bandwidth in accordance to the predetermined and event-driven settings as set in the initial coding rate, and adjusted by the recursive rate control scheme in that the quantization can be adjusted dependent on the content as obtained, including changes from one image to another image, ie.motion). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

Regarding claim 6, Ramirez-Diaz does not specifically disclose dynamic allocation of bandwidth comprises modulating bandwidth related configuration of the video imaging device. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data responsive to detected motion event (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner in that the MPEG compression uses a recursive rate control scheme to dynamically allocate the bandwidth needed for compressing and transmitting video data by responsively allocating the needed bandwidth related configuration as set in the recursive rate control scheme of MPEG, such as quantization parameter in that controls the framing rate and image resolution). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode

image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

Regarding claims 7 and 16, Ramirez-Diaz does not specifically disclose bandwidth related configuration of said video imaging device comprises at least one video control parameter selected from the group of consisting essentially of color depth, image size, image resolution, and framing rate. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner in that the MPEG compression uses a recursive rate control scheme to dynamically allocate the bandwidth needed for compressing and transmitting video data by responsively allocating the needed bandwidth related configuration as set in the recursive rate control scheme of MPEG, such as quantization parameter in that controls the framing rate and image resolution). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

Regarding claim 8, Ramirez-Diaz discloses data storage device (fig.7, element 5b is considered to be one of many data storage devices that is interactively connected to the computer server 3b for storing portions of the video data stream, col.4, ln.19-38, standard PCs or computers must have harddrives, disc and USB drives to store video image data; col.3, ln.22-37).

Regarding claim 9, Ramirez-Diaz discloses a computer server (fig.7, element 3a-3b are servers and that elements 2a-2b are displays and element 3b has a remote consoles with corresponding displays).

Regarding claim 10, Ramirez-Diaz discloses a computer operating as a video server configured for communicating video data streams (fig.7, element 3a-3b are servers and that elements 2a-2b are displays and element 3b has a remote consoles with corresponding displays, and that the communication link "TCP/IP Over Dialup/LAN/Internet link" is used to communicate remotely to remote console 1 to console n or to any other computer that is connected to the aforementioned communication link); and a remote communication link within the computer server which is configured for communicating video signals received from at least one video imaging device (fig.7, Ramirez-Diaz discloses "TCP/IP Over Dialup/LAN/Internet link" is used to communicate remotely to remote console 1 to console n; col.4, ln.50-53).

Ramirez-Diaz does not specifically disclose selectable bandwidth allocation over said AC power-line for said video imaging devices. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner in that the MPEG compression uses a recursive rate control scheme to dynamically allocate the bandwidth needed for compressing and transmitting video data, in that the recursive rate control scheme can affect the selectable quantization parameter for adjusting the coding rate). Therefore, it would have been obvious to one of ordinary

skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

Regarding claim 11, Ramirez-Diaz discloses the user interface configured for capturing user commands for controlling the collection and display of said video streams (col.4, ln.19-32 and fig.7, Ramirez-Diaz discloses the use of computers with user terminals for permitting the operator or user to command and control the camera obtained images from multiple cameras 4a-4x).

Regarding claim 12, Ramirez-Diaz discloses a system for providing area surveillance (fig.7), comprising:

at least one video imaging device connected to an AC power-line and configured for generating a video data stream of an area under surveillance (fig.7, elements 4a-4x are the electronic imaging devices connected via a line carrying electric current and col.5, ln.58-65; also note "TCP/IP over dialup/LAN/Internet link" are used for communication of data to remote video imaging devices);

a computer server connected to said AC power-line and configured for receiving said video data stream and communicating said video data stream to a display device according to user preferences (fig.7, element 3b is a computer server, the display device at element 5a can be used for viewing; also note "TCP/IP over dialup/LAN/Internet link" are used for communication of data to remote video imaging devices);

a data storage device coupled to said computer server configured for storing portions of said video data stream (fig.7, element 5b is considered to be one of many data storage devices that is interactively connected to the computer server 3b for storing portions of the video data stream; col.3, ln.22-37); and

a user interface within said computer server configured for capturing user preferences for controlling the collection and display of said video data streams (fig.7, note element 1a receives the video data stream and that element 2a is the interface that can control the presentation, ie. user preferences, of the received video data stream as passed to the video display interface at element 5a for storage or presentation to the user at element 5a).

Ramirez-Diaz does not specifically disclose wherein said computer server is configured to dynamically allocate bandwidth for video imaging devices in response to predetermined or event-driven settings. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner in that the MPEG compression uses a recursive rate control scheme to dynamically allocate the bandwidth needed for compressing and transmitting video data by responsively allocating the needed bandwidth in accordance to the predetermined and event-driven settings as set in the initial coding rate, and adjusted by the recursive rate control scheme). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately,

efficiently encode image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

Regarding claim 15, Ramirez-Diaz does not specifically disclose the dynamic allocation of bandwidth comprises modulating settings within said video imaging device which determine the bandwidth of the video data stream being output. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data modulating settings within the video imaging device that determine the bandwidth of the video data stream being output (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner in that the MPEG compression uses a recursive rate control scheme to dynamically allocate the bandwidth needed for compressing and transmitting video data at an acceptable coding frame rate for output by responsively allocating the needed bandwidth related configuration as set in the recursive rate control scheme of MPEG, such as quantization parameter in that controls the framing rate and image resolution). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

Regarding claim 17, Ramirez-Diaz discloses wireless communication (fig.7, note "remote console" is used).

Regarding claim 18, Ramirez-Diaz discloses user interface comprises wired connections to user input selectors (fig.8A, note coaxial cable is used in that wiring is used for input and output devices as all electronic devices use wired connections).

Regarding claim 19, Ramirez-Diaz discloses the user interface comprises the connection through a remote communications link configured for communicating with the remote electronic device interacting with the user at a remote location (col.4, ln.19-32 and fig.7, Ramirez-Diaz discloses the use of computers with user terminals for permitting the operator or user to command and control the camera obtained images from multiple cameras 4a-4x, fig.7, element 3a-3b are servers and that elements 2a-2b are displays and element 3b has a remote consoles with corresponding displays, and that the communication link "TCP/IP Over Dialup/LAN/Internet link" is used to communicate remotely to remote console 1 to console n or to any other computer that is connected to the aforementioned communication link).

Regarding claim 20, Ramirez-Diaz discloses the means for authenticating a user through a remote communications link configured as the user interface (col.4, ln.41-50; since the system of fig.7 permits interaction between remote consoles and host consoles, so proper user authentication over a remote communication link must be disclosed to permit safe, authenticated remote interaction to video security data).

Regarding claim 21, Ramirez-Diaz discloses the authenticating means comprises decrypting communications with the remote electronic device in response to the entry of a proper identifier (col.4, ln.41-50; since the system of fig.7 permits interaction between remote consoles and host consoles, so clearly, proper user authentication over a

remote communication link with proper authorization over the decrypting communication software must be disclosed to permit safe, authenticated remote interaction to video security data).

Regarding claim 22, Ramirez-Diaz discloses the remote communications link is configured for communicating video signals received from the video imaging device to a location outside the extent of communication over the AC power-line (fig.7, Ramirez-Diaz discloses "TCP/IP Over Dialup/LAN/Internet link" is used to communicate remotely to remote console 1 to console n; col.4, ln.50-53).

Regarding claim 23, Ramirez-Diaz discloses the video data streams are encoded video signals (fig.7, the cameras 4a-4x obtain video images and send the video data streams in a compressed form, as disclosed in col.6, ln.23-29, in that Ramirez-Diaz discloses that video data can be compressed).

Regarding claims 24 and 29, Ramirez-Diaz does not specifically disclose the video signals are MPEG encoded. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (col.3, ln.13-29).

Regarding claim 25, Ramirez-Diaz discloses an apparatus for imaging an area under video surveillance (fig.7), comprising:

an image sensor (fig.7, element 4a);

a communications interface configured for communicating over an AC power-line with a server, and video signals from said image sensor are transmitted to said server (fig.7, element 3b is a server that receives video data obtained from element 4a, and that element 5a is a communications interface that communicates over the power line carrying current, also note "TCP/IP over dialup/LAN/Internet link" are used for communication of data).

Ramirez-Diaz does not specifically disclose the dynamic bandwidth allocations are received from said server, and video signals from said image sensor subject to said dynamic bandwidth allocation is transmitted to said server. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

Regarding claim 28, Ramirez-Diaz does not specifically disclose the dynamic allocation of bandwidth comprises modulating settings within said video imaging device which determine the bandwidth of the video data stream being output; and bandwidth

related configuration of said video imaging device comprises at least one video control parameter selected from the group of consisting essentially of color depth, image size, image resolution, and framing rate.

However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data modulating settings within the video imaging device that determine the bandwidth of the video data stream being output (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner in that the MPEG compression uses a recursive rate control scheme to dynamically allocate the bandwidth needed for compressing and transmitting video data at an acceptable coding frame rate for output by responsively allocating the needed bandwidth related configuration as set in the recursive rate control scheme of MPEG, such as quantization parameter in that controls the framing rate and image resolution). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

Regarding claim 30, Ramirez-Diaz discloses the means for sensing motion and communicating the motion over the AC power line to the server (col.4, ln.19-25, motion is sensed and the data is transmitted; fig.7, element 3a-3b are servers and that elements 2a-2b are displays and element 3b has a remote consoles with corresponding displays, and that the communication link "TCP/IP Over Dialup/LAN/Internet link" is used to communicate remotely to remote console 1 to

console n or to any other computer that is connected to the aforementioned communication link).

Regarding claim 31, Ramirez-Diaz discloses the motion sensors (col.4, ln.19-25 and col.5, ln.33-42).

Regarding claim 32, Ramirez-Diaz discloses the sensing of motion and extraction of motion when encoding the video signals (col.4, ln.19-25). Ramirez-Diaz does not specifically disclose the video signals are MPEG encoded. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (col.3, ln.13-29).

Regarding claim 33, Ramirez-Diaz discloses the encryption circuit for encrypting the video signals for communication over the AC power line (col.4, ln.41-50; since the system of fig.7 permits interaction between remote consoles and host consoles, so clearly, proper user authentication over a remote communication link with proper authorization over the encrypting/decrypting communication software must be disclosed to permit safe, authenticated remote interaction to video security data).

Regarding claim 34, Ramirez-Diaz discloses an apparatus for monitoring and controlling video surveillance (fig.7), comprising:

a power-line interface configured for communicating over an AC power-line with remote video imaging devices (fig.7, element 5a, also note "TCP/IP over dialup/LAN/Internet link" are used for communication of data to remote video imaging devices);

a user interface configured for capturing user preferences for controlling the collection and display of said video streams (fig.7, element 2a permits the user to interact and control the display of information and col.4, ln.19-25); and

a computer server configured for receiving video streams, said computer server also configured to communicate said video streams for storage and/or display in response to said user preferences (fig.7, note element 1a receives the video data stream and that element 2a is the interface that can control the presentation, ie. user preferences, of the received video data stream as passed to the video display interface at element 5a for storage or presentation to the user at element 5a).

Ramirez-Diaz does not specifically disclose the dynamic bandwidth allocations are received from said server, and video signals from said image sensor subject to said dynamic bandwidth allocation is transmitted to said server. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately,

efficiently encode image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

Regarding claim 35, Ramirez-Diaz discloses the internal storage device for storing video data streams (fig.7, element 5b is considered to be one of many data storage devices that is interactively connected to the computer server 3b for storing portions of the video data stream, col.4, ln.19-38, standard PCs or computers must have harddrives, disc and USB drives to store video image data; col.3, ln.22-37).

Regarding claim 36, Ramirez-Diaz discloses the remote communications interface configured for communicating the video streams from the computer server to the user at the remote location beyond the range of the power line interface (col.4, ln.19-32 and fig.7, Ramirez-Diaz discloses the use of computers with user terminals for permitting the operator or user to command and control the camera obtained images from multiple cameras 4a-4x, fig.7, element 3a-3b are servers and that elements 2a-2b are displays and element 3b has a remote consoles with corresponding displays, and that the communication link "TCP/IP Over Dialup/LAN/Internet link" is used to communicate remotely to remote console 1 to console n or to any other computer that is connected to the aforementioned communication link).

Regarding claim 39, Ramirez-Diaz discloses an apparatus for controlling video surveillance (fig.7), comprising:

a power-line interface configured for receiving video data streams from video imaging devices connected to said power-line interface (fig.7, element 5a; also note

"TCP/IP over dialup/LAN/Internet link" are used for communication of data to remote video imaging devices);

a computer configured for communicating said video data streams to a display device (fig.7, element 2a); and

programming executable on said computer for, interacting with a user for controlling the receipt and display of said video data streams (fig.7, note element 1a receives the video data stream and that element 2a is the interface that can control the presentation, ie. user preferences, of the received video data stream as passed to the video display interface at element 5a for storage or presentation to the user at element 5a; col.3, ln.22-37 discloses the storage of video data).

Ramirez-Diaz discloses the displaying of multiple images from multiple streams from multiple video imaging devices (fig.7, note 5a is an interface that can display multiple video image streams as shown in fig.3, where there are multiple video imaging devices 4a-4x). Ramirez-Diaz does not specifically disclose controlling the bandwidth of said video data streams generated by said video imaging devices when multiple video imaging devices are active; and wherein bandwidth is dynamically allocated between all said video streams generated by said video imaging devices. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for controlled transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner in that the MPEG compression uses a recursive rate control scheme to dynamically allocate the bandwidth needed for compressing and

transmitting video data by responsively allocating the needed bandwidth). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

Regarding claim 40, Ramirez-Diaz discloses the data storage unit configured for storing the video data streams received from the video imaging devices (fig.7, element 5b is considered to be one of many data storage devices that is interactively connected to the computer server 3b for storing portions of the video data stream, col.4, ln.19-38, standard PCs or computers must have harddrives, disc and USB drives to store video image data; col.3, ln.22-37).

Regarding claim 41, Ramirez-Diaz does not specifically disclose receiving bandwidth requests within the computer from video imaging devices; determining a bandwidth allocation based on predetermined or event driven settings; and communicating bandwidth controlling commands to the video imaging devices connected over the power line interface. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data modulating settings within the video imaging device that determine the bandwidth of the video data stream being output (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner in that the MPEG compression uses a recursive rate control scheme to dynamically allocate the bandwidth needed for compressing and transmitting video data at an acceptable coding frame rate for output by responsively allocating the

needed bandwidth related configuration as set in the recursive rate control scheme of MPEG, such as quantization parameter in that controls the framing rate and image resolution, wherein these settings can be user-commanded or user-controlled to set to a desired setting at the user interface). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

Regarding claim 42, Ramirez-Diaz does not specifically disclose the dynamic allocation of bandwidth comprises modulating settings within said video imaging device which determine the bandwidth of the video data stream being output; and bandwidth related configuration of said video imaging device comprises at least one video control parameter selected from the group of consisting essentially of color depth, image size, image resolution, and framing rate.

However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data modulating settings within the video imaging device that determine the bandwidth of the video data stream being output (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner in that the MPEG compression uses a recursive rate control scheme to dynamically allocate the bandwidth needed for compressing and transmitting video data at an acceptable coding frame rate for output by responsively allocating the needed bandwidth related configuration as set in the recursive rate control scheme of MPEG, such as quantization

parameter in that controls the framing rate and image resolution). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

Regarding claim 43, Ramirez-Diaz discloses a media that is computer readable medium encoded with a computer program having executable instructions which, when executed by a controller for a video device capable of receiving video streams over a power-line communication network and of outputting video streams to a display device (fig.7, also note "TCP/IP over dialup/LAN/Internet link" is a communication network link that is used for communication of data to remote video imaging devices, where there are remote consoles with displays and elements 2a, 2b, 2c, 2d also are displays for outputting the video streams), causes the controller to perform the steps comprising:

interacting with a user for controlling the receipt and display of said video data streams (fig.7, element 2a can be used to interact with a user at element 5a; col.4, ln.19-32 discloses the user can control the video data streams and interact accordingly); and

communicating selected portions of said video signals from said video device to a display device connected to said video device (fig.7, note element 1a receives the video data stream and that element 2a is the interface that can control the presentation, ie. user preferences, of the received video data stream as passed to the video display interface at element 5a for storage or presentation to the user at element 5a, also note "TCP/IP over dialup/LAN/Internet link" is a communication network link

that is used for communication of data to remote video imaging devices, where there are remote consoles with displays and elements 2a, 2b, 2c, 2d also are displays for outputting the video streams).

Ramirez-Diaz does not specifically disclose controlling the bandwidth of said video data streams generated by said video imaging devices. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for controlled transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

Regarding claim 44, Ramirez-Diaz discloses a method of providing area surveillance (fig.7), comprising:

generating video signals in response to video surveillance of one or more areas (fig.7, elements 4a-4x obtains video image signals and generates video signals to a computer 2a; also note "TCP/IP over dialup/LAN/Internet link" are used for communication of data to remote video imaging devices);

communicating said video signals over an AC power line (fig.7, element 3b is a computer server, the display device at element 5a can be used for viewing; also note "TCP/IP over dialup/LAN/Internet link" are used for communication of video data to remote video imaging devices);

receiving said video signals within a computer server connected to said AC power line (fig.7, element 5b is considered to be one of many data storage devices that is interactively connected to the computer server 3b for storing portions of the video data stream, via the communication link "TCP/IP over dialup/LAN/Internet link" are used for communication of data to remote video imaging devices); and

communicating selected portions of said video signals from said computer server to a display in response to predetermined or event driven criterion (fig.7, note element 1a receives the video data stream and that element 2a is the interface that can control the presentation, ie. user preferences, of the received video data stream as passed to the video display interface at element 5a for storage or presentation to the user at element 5a).

Ramirez-Diaz does not specifically disclose dynamic bandwidth allocation. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for controlled transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (Smith col.3, ln.13-29).

3. Claims 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramirez-Diaz (6,476,858) and Smith (6,757,008) in view of Datari (6,418,169).

Regarding claim 37, Ramirez-Diaz and Smith do not specifically disclose the user interface and the computer server are integrated within a set-top box, television, or video recording device. However, Datari teaches integrating and merging the user interface and the computer server within a recording device for obtaining and recording video image data (fig.1, element 12 is a set top box that incorporates the user interface 69 from the user remote control unit 67 and that elements 30 and 65 receives the video data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz, Smith and Datari, as a whole, for integrating and merging the user interface and the computer server within a recording device for prioritizing obtained and recorded video image data (Datari col.1, ln.46-54).

Regarding claim 38, Ramirez-Diaz and Smith do not specifically disclose the television tuner coupled to the server for reception of broadcast television and cable based or satellite base video programming. However, Datari teaches the television tuner coupled to the server for reception of broadcast television and cable based or satellite base video programming (fig.1, element 30 and 65). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz, Smith and Datari, as a whole, for integrating and merging the user interface and the computer server within a recording device for prioritizing obtained and recorded video image data (Datari col.1, ln.46-54).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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11/26/07